



THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
B. Foulger, et al.) Group Art Unit: 2881
Serial No.: 09/889,639) Examiner: P. Gurzo
Filed: December 4, 2001)
For: FIRE DETECTION METHOD)

December 17, 2003
Attorney Docket No. 41577/261336

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Dan W. Finner
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**RESPONSE AND
PETITION FOR EXTENSION OF TIME**

Dear Sir:

This paper is submitted in response to the Office Action mailed July 18, 2003 in connection with the above-identified application.

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Response

A. Introduction

Claims 1 and 17-22 remain pending in the application. After withdrawing prior rejections, the Examiner initially rejected these claims under 35 § U.S.C. 103(a) as unpatentable over the combined disclosures of U.S. Patent Nos. 5,653,539 to Rosengaus and 5,405,781 to Davies, et al. Although acknowledging that the Rosengaus patent does not describe use of an ion mobility mass spectrometer, see Office Action at p. 2, the Examiner nevertheless contends that

it would have been obvious . . . to use the [ion mobility spectrometer of the Davies patent with the invention of the Rosengaus patent] because it has the ability to supply the appropriate gases (sample and drift gases) to detect the appropriate temperature readings.

Id. Applicants disagree and believe the Examiner has failed to establish a *prima facie* basis for the initial rejection of claims 1 and 17-22.

B. The Rejections

1. The Rosengaus Patent

As currently drafted, claim 1 recites “[a] method for *detecting a heightened risk of the onset of fire* of an electrical component” by sampling the *atmosphere around the component* using an ion mobility spectrometer

and

detecting a change in the ion mobility spectrum that is characteristic of overheating of the component.

By contrast, *none* of these features of the invention are disclosed in the Rosengaus patent. Not only does the Rosengaus patent fail to disclose use of an ion mobility

spectrometer--as the Examiner has acknowledged--it also does *not* sample the *atmosphere* around an electrical component. Instead, the system of the Rosengaus patent detects *luminescence* of chemiluminescent material applied to a *surface* of a machine or biological system.

Likewise, notwithstanding the Examiner's assumption that the system of the Rosengaus patent will detect changes in spectrum characteristic of overheating of an electrical component, such detection is neither described nor suggested in the patent itself. Nor does the Rosengaus patent include any discussion whatsoever of detecting any heightened risk of fire caused by component overheating. Consequently, multiple differences exist between claim 1 and the disclosure of the Rosengaus patent, precluding the Examiner from relying on it as the primary basis for rejecting claims 1 and 17-22.

2. The Davies Patent

As noted above, the Rosengaus patent contains *no suggestion whatsoever* of utilizing ion mobility spectroscopy--which monitors *vapor* emissions--in place of *light-emission* spectroscopy. This omission is not surprising, as prior uses of ion mobility spectroscopy typically have been limited to materials exhibiting significant vapor pressure and electronegative character, such as the explosives and narcotics mentioned in the Davies patent. Consequently, no basis exists for combining the disclosures of the Rosengaus and Davies patents.

However, even assuming (but not conceding) one skilled in the relevant art would know to make this combination, it would *not* include all features of the claimed invention. As noted in Applicants' prior submission, the Davies patent

discloses methods and apparatus for detecting small quantities of explosives and narcotics through removing water vapor from drift gas. The Davies patent hence *fails even to mention electrical components*, much less disclose detecting any heightened risk of the onset of fire of an electrical component by detecting change in an ion mobility spectrum characteristic of overheating. Combining the disclosures of the Davies and Rosengaus patents, therefore, would yield either (1) detecting *luminescence* changes on surfaces or (2) determining whether *explosives or narcotics* are present on the surfaces. Neither result, however, constitutes the invention recited in claim 1. For at least these reasons, therefore, Applicants request that claims 1 and 17-22 be allowed.

Petition for Extension of Time

Pursuant to 37 C.F.R. § 1.136(a), Applicants petition the Commissioner for all extensions of time needed to respond to the Office Action. Enclosed is a check for \$420.00 for the petition fee. Applicants believe no other fee presently is due. However, if Applicants' belief is mistaken, the Commissioner is authorized to debit Deposit Account No. 11-0855 for any additional fee due as a consequence of Applicants' submission of this paper.

Conclusion

Applicants request that the Examiner allow claims 1 and 17-22 and that a patent containing these claims issue in due course.

Respectfully submitted,

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